GENERAL INDEX.

NOTE.—The numbers following the titles of articles are the pages of Volume V. Those in parenthesis are the numbers of the minor planets.

A

American Astronomical Instruments, by Pogson, 14.
American Instruments and Observers, 27.
Astronomical Work for Amateurs in Preparation, 126.
A. A. A. S. Place of Meeting, 217.
A Blazing Star, 269.
Astronomischen Gesellschaft, 280.
Armagh Catalogue of 3,300 Stars, 283.
Astronomy in 1885, 284
Aurora for July, 1886, 287.
Astronomy and the Ice Age, 293.
Astronomical Themes in Late Periodicals, 304.
Annals of Harvard Coll. Obs'y, Vol. XVI, 310.
Alpha Lyræ and 61 Cygni, Parallax of, 311.
Arthur, Barnes and Coulter's Plant Dissection, 320.

B

Biela Meteors, 11, 20, 23, 26, 29, 74.
Belknap, Supt., G. E., 19, 88.
Barnard, E. E., 25, 27, 60, 74, 89, 154, 156, 157, 181, 184, 191, 218, 255, 275, 286, 288, 311.
Bardwell, E. M., 29.
Beloit Observatory, 32.
Bacon, Chas. A., 32.
Burnham, S. W., 56, 87.
Book Notices, 62, 63, 94, 128, 158, 191, 288, 319.
Backhouse, T. W., 114.
Bailey, F. H., 128.
Bishop, Sereno, 129.
Brashear, Jno., 149.
Brooks, Wm. R., 185, 217.
Byrd, Miss Mary E., 263.
Brockwell Observatory, 287.

C

Comets 1812 I, and 1846 IV, 13.
Comets, Observations of, Wolf, Encke, Barnard and Brooks, 19.
Comet of Paris, Discovery, Observations and Elements, 21, 60, 62.
Comet of Barnard (II), Observations and Elements, 21.
Computation of the Elements of Meteoric Orbits, 33.
Corrigan, S. J., 33, 100, 123, 145, 311.
Comets of 1885, 50.
Comet of Brooks, Discovery, 55, 89.
Comet of Barnard, *e* 1885, 57, 91, 118, 132, 124, 157.
Ceti 82, Double-Star, 87.
Comet 1883, I (Brooks), 92.
Comet *a* 1885 (Barnard), 93, 191.
Cycle of Celestial Objects, 95.
Chambers, Geo. F., 95.
Cometary Meteor Showers, 106.
Chronograph Pens, 121.
Comet of Fabry, 122, 124, 156, 158, 189.
Comets of Fabry and Barnard, 142, 153, 181, 189, 190, 256.
Comet Meteor Radiants, 152.
Catalogue of Suspected Variable Stars, 160.
Comet 1882 II, 181.
Comet Discoveries, 181.
Comparison of Sirius, Obs. of, 182.
Comets *a* and *b*, 1886 (Brooks), 185, 186, 187.
Chi Cygni, 188.
Comet Brooks, Discovery of, No. 3, 1886, 217.
Comet *c* (Brooks), Observations, 218.
Comstock, Geo. C., 225.
Cutler, Miss Mary B., 267.
Colbert, Prof. E., 270.
Comet of Barnard (1886), 275, 309, 310.
Comet of Finlay, 277, 309.
Comet Orbit Models, 285.
Chabot Observatory, 286.
Catalogue of Green and Blue Stars, 287.
Comet, Winnecke's Periodic, 288.
Catalogue of 1213 Stars, 313.
Comet *b* 1885 (Brooks), Error in Elements, 317.
Chaney, Jr., L. W., 320.

D

Dearborn Observatory, Report of, 23.
Double-Star, H. 2004, 56, 93.
Denning, W. F., 61, 62, 106, 167, 282.
Doolittle, C. L., 63, 256.
Double-Star, 395.—87.
Double-Star, H. 1868, 89.
Double-Star, A. C. 5.—125.
Double Star Work at Pulkowa, 193.
Diffraction, 200.
Double-Stars, 30 and 41 Geminorum, 218.
Discovery Dates of the Brooks Comets *a*, *b*, *c*, 1886, 223.
Davidson, George, 224.
Double-Star preceding Beta Capricorni, 285.

E

Eadie, John H., 26, 79, 317.
Electric Phenomena in our Solar System, 81, 234.
Egbert, H. V., 91, 186, 218.
Ennis, Jacob, 234.
Extension of Astronomical Research, 280.
Ewell, Marshal D., 287.
Eclipse Photographed, 313.
Edinburgh Obs., Vol. XV, 314.
Espin, T. S., 319.

F

Frisby, Prof. E., 19, 187.
Fauth & Co., New Instruments, 127.

G

Galle's Catalogue of Comets from 1860 to 1884, 5, 20, 41, 91.
Gamma Andromedæ, 61.

H

Hall, Prof. A., 19, 29, 97.
Hough, Prof. G. W., 23, 119, 122, 161, 184, 285.
Hall, Angelo, 27.
Hyades, Occultations of, 28.
Horigan, D., 29.
Haywood, John, 81, 270.
Hand-Book of Descriptive Astronomy, 94.
Hagan, J. G., 188.
Hooper, J. R,. 189, 190.
Hill, Chas. B., 224.
Hymn, 268.
Huntington, Prof. Geo., 268.
Hitherto Unrecognized Wave-Lengths, 278.
Howver, J. C., 287.

I

Images of the Stars, 97.
Instrumental Photometry, 230.

J

Jupiter, Red Spot, 62. 119, 183, 281.
Jupiter's Satellite III, Dark Transit of, 125.
Jupiter, Dark Transits on, 155.
Jupiter, Black Transit of Satellite IV, 184.

K

Kirkwood, Prof. D., 13, 29.
Krueger, Prof., 20.
Keeler, J. E., 223, 287.

L

Latitude, Observations with the Almucantar at the Tarrytown Observatory, 25.
Latitude of Madison, Wis., Observations of 23 B. A. C. Stars, 26.
Lacaille 8262, 58.
Leonard, N. R., 58.
List of the Warner Prizes, 123.
Leavenworth, F. P., 127, 154.
Lick Obs'y, Equatorials, 152, 221.
Lamb, Alice Maxwell, 179.
Leander McCormick Obs'y, 315.
Lick Photograph Lens, 318.

M

Measures of the Velocity of Light. Introduction to Vol. 2, Astronomical Papers, 15, 68.
Memoirs of the R. A. S., Vol. 48, 24.
Meteors, Observations of, 27, 28, 30 58, 61.
Minor Planets (251), 28, 151; (254) (255) (256) (257), 160; (258), 223.
Moon, (Book Notice), 62.
Mira Ceti, 92.
Morrison, J., 118.
Morse's Landmarks in Astronomy, 158.
McNeill, M., 182.
Meridian Circle of the Lick Observatory, 225.
Maine, Henry C., 237.
Magnifying Power of Telescopes, 255.
Manual of Land Surveying, by Bellows and Hodgman, 288.

N

Newcomb, Prof. S., 15, 68.
New Comets, 20.
New Nebulæ, Swift's Catalogue of, 22.
New Equatorial for Washington Univ. Obs'y, 24.
New Nebulæ by E. E. Barnard, 25.
Nebula, Excessively faint, 27.
Nebula, large near G. C. 4510, 30.
Nova of Andromeda, 51, 79, 90.
Numsen, W. H., 51.
New Star. Disappearance of, 59.
Nebula, Suspected Proper Motion, 60.
Naval Observatory, Work for 1886, 88, 120.
New Nebulous Star, 154.
Nebula, 4036 of H. G. C., 255.
New Comet (Barnard), 275.
New Astronomical Observatory at Carleton College, 284.
New Nebulæ, by Swift, 285.
Nebula, No. 4594 of G. C., 286.
New Catalogue of the Magnitude of Southern Stars, 299.
New Star in Orion, 318.
New Minor Planets, Discovery of, (260) (261) (262) (263), 318.

O

Occultations at the Cape Obs'y, 60.
Orbits of Meteors, 111.
Omicron Ceti, 156, 188.
Orbit of Comet *b* (Brooks) 220.
Occultations of Stars in the Hyades, at Davidson's Obs'y, 224.
Orbit of the Binary Star Gamma Corona Australis, 251.
Occultation 4 Geminorum, by Jupiter, 254.
Our Knowledge of Comets, 257.
Observatory in La Plata, 316.
Osborn's Differential Equations, 319.

P

Payne, W. W., 11, 142.
Parkhurst, Henry M., 53, 90, 200, 230, 255, 318.
Papers Received, 64.
Pritchett, H. C., 65.
Prediction of Fine Seeing, 113.
Proposed Maps for Tracing Meteor Paths, 114.
Perry, A. C., 123.
Primary Phenomenal Astronomy, 128.
Principal Comet Meteor Streams, 145.
Palisa, J., 151.
Popular History of Astronomy during the 19th Century, 158.
Printing Chronograph, Description of, 161.
Personal Errors in Double Star Observations, 174, 211.
Proper Motion in a Small Star near 70 Ophiuchi, 219.
Popular Fallacies about Observatories, 263.
Provisional Value of the Latitude of Lick Observatory, 302.
Photography of the Heavens, 315.

R

Rowland, H. A., 85.
Relation between Meteoric Orbits and Radiants, 100.
Red Sunsets, 126, 129, 237.
Repolishing Rock Salt Surfaces, 222.
Remarkable Comet Discoveries, 286.
Rotation Time of the Red Spot on Jupiter, 289.
Recent Meteor Showers, 309.
Rogers, Wm. A., 313.
Red Light Essay, Error, 319.

S

Small Telescopes *vs.* Large, 1.
Smyth, C. Piazzi, 14, 27, 314.
Swift, Dr. L., 22, 59, 60, 93, 124.
Sawyer, Edwin F., 28, 156.
Schimpff, R. D., 29, 313.
Subscribers, List of, 32, 93, 191.
Summation of Co-ordinates, 52.
Solar Eclipse of 1886, 54.
Saturn, 58, 123.
Smith, H. L., 61.
Solar Spectrum, Normal, 85.
Stellar Photography, 91.
Sadler, Herbert, 87, 89, 93, 219, 220.
Smith College Telescope, 153.
Stationary Meteor Showers, 167.
Star Guide, 191.
Struve, Otto, 193.
Short Method for Computing Occultations, 203.
Standard of American Astronomy, 279.
Solar Eclipse of 1886, 282.
Sidereal Day, 312.
Stone, Prof. O., 315.
Scott, W. R., 316.
Sedgwick & Wilson's General Biology, 319.

T

Title of Contributions to Astronomical Periodicals, 20.
Tuttle's Comet, 59.
Treatise on Practical Astronomy, 63.
Todd, David P., 113.
Titles of Papers Read at Buffalo Meeting of A. A. A. S., 253.
The Superstructure (Poem), 267.
The Tangent Index, 270.
The Six Inner Satellites of Saturn, 297.

W

Winlock, W. C., 5, 19, 41, 50, 181.
Warner & Swasey, 24.
Wilson, H. C., 30, 57, 58, 62, 125, 174, 211, 251, 254, 257.
Washington Univ. Equatorial, 65.
Wendell, O. C., 92, 111, 152, 220.
Working Rock Salt Surfaces, 149.
Weather Telegraphic Signals in North America, 156.
Willet's Point, Observations, 179.
Warner Astronomical Prizes, 188.
Warner, H. H., 189.
Woodside, Chas. L., 203, 287.

Y

Young, Professor C. A., 1, 23.

ILLUSTRATIONS.

Washington University Equatorial 66
Electric Phenomena 82, 83
Fluctuations of Nova Andromedæ 90
Hough's Printing Chronograph 162
Personal Errors in Double-Star Observations 175
Comet of Brooks No. 2, 1886 185
Occultations of 37 Sextantis 209
Red Light Views 238, 239, 240, 241, 242, 243
Tangent Index 273
Spot on Jupiter 289
Belts and Spot on Jupiter 292